

GAO Highlights

Highlights of [GAO-15-486T](#), a testimony before the Subcommittee on Aviation, Operations, Safety, and Security, Committee on Commerce, Science, and Transportation, U.S. Senate

Why GAO Did This Study

UAS—often called drones—are aircraft that do not carry a pilot but instead operate on pre-programmed routes or are manually controlled. Currently, UAS only operate in the United States with FAA approval on a case-by-case basis. However, in the absence of regulations, unauthorized UAS operations have, in some instances, compromised safety.

The FAA Modernization and Reform Act of 2012 emphasized the need to integrate UAS into the national airspace by requiring that FAA establish requirements governing them. In response, FAA has taken a number of steps, most notably,

- issuing an NPRM for small UAS operations, and
- designating six UAS test sites which became operational in 2014 and have begun to conduct test flights.

Other countries have started to integrate UAS as well, and many currently allow commercial operations.

This testimony provides preliminary observations on 1) status of FAA's test sites, 2) how other countries have progressed integrating UAS for commercial purposes, and 3) critical steps for FAA going forward.

This testimony is based on GAO's ongoing study examining issues related to UAS integration into the national airspace system for UAS operations. To conduct this work, GAO reviewed documents and met with officials from test sites, FAA, and industry stakeholders.

View [GAO-15-486T](#). For more information, contact Gerald Dillingham at (202) 512-2834 or dillinghamg@gao.gov.

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UNMANNED AERIAL SYSTEMS

Status of Test Sites and International Developments

What GAO Found

Since becoming operational in 2014, the Federal Aviation Administration's (FAA) unmanned aerial systems (UAS) test sites have conducted over 195 flights across five of the six test sites. These flights provide operations and safety data that FAA can use in support of integrating UAS into the national airspace. FAA has not provided funding to the test sites in support of research and development activities but has provided staff time through, for example bi-weekly meetings to discuss ongoing issues with test site officials. FAA staff said that the sites are a benefit to the integration process and worth this investment.

GAO's preliminary observations found that other countries have progressed toward UAS integration and allow commercial use. GAO studied the UAS regulations in Australia, Canada, France, and the United Kingdom and found these countries have similar rules and restrictions on commercial UAS operations, such as allowing line of sight operations only. In November 2014, Canada issued new rules creating exemptions for UAS operations based on size and relative risk. In addition, as of December 2014, Australia had issued over 180 UAS operating certificates to businesses engaged in aerial surveying, photography, and other lines of business. Under the provisions of FAA's proposed rules, operating restrictions would be similar to regulations in these other four countries. For example, all countries have UAS altitude restrictions of 500 feet or below.

FAA faces some critical steps to keep the UAS integration process moving forward. First, issuing the Notice of Proposed Rulemaking (NPRM) in February 2015 for small UAS operations was an important step, but FAA expects to receive tens of thousands of comments on the proposed rule. FAA's goal is to issue the final rule 16 months after the release of the NPRM. If this goal is met, the final rule would be issued in late 2016 or early 2017, about 2 years after the 2012 Act required. Second, the *Comprehensive Plan* and *UAS Roadmap* provide broad plans for integration; however, an implementation plan would help predict with more certainty when full integration will occur and the resources needed to achieve it safely. Finally, test site operators told GAO that incentives are needed to encourage more UAS operations at the test sites. FAA stated it is working with test sites to make access to the airspace easier. GAO will continue to monitor these issues and plans to report its final results later this year.

UAS Conducting Flare Stack Inspections and Powerline Inspections



Flare stack inspection

Source: FAA. | GAO-15-486T



Powerline inspection